REMARKS

Claims 1 and 31-33 have been amended. The amendments introduce no new matter into the application. Support for claim 1, for example, can be located at page 49, lines 1-22 through page 50, lines 1-5 of the application.

On page 2 of the Office Action, claim 33 was rejected under 35 U.S.C. § 101 due to the claim allegedly being directed to non-statutory subject matter. According to the Examiner, the language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment, or machine, which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. § 101.

More specifically, the Examiner alleged on page 3 of the Office Action, that the claim is directed to a method that does not require computer-implementation or use of technology to accomplish. According to the Examiner, the claim allows for the involvement of subjective human decision, and therefore, does not necessarily produce repeatable concrete results.

Applicants respectfully submit that in the precedential decision of Ex Parte Lundgren, Appeal 2003--2088 (October 2005), the United States Patent and Trademark Office Board of Patent Appeals and Interferences ruled "that there is currently no judicially recognized 'technological arts' test to determine patent eligible subject matter under 35 U.S.C. § 101." The Board also specifically indicated that the non-precedential decision of Ex Parte Bowman was not a binding decision.

Moreover, the claim is not directed to an abstract idea. Rather, the claim clearly recites functional subject matter in the form of concrete, tangible acts, for example, outputting information of the manufacturing line, as recited in claim 33.

For the foregoing reasons, Applicants respectfully request withdrawal of the rejection for lack of a foundation in the law.

On page 3 of the Office Action, claims 1, 4, 6, 8-22, and 29-33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. Pub. U.S. 2004/0064211 A1 (Mateau) in view of U.S. Pat. No. 5,777,876 (Beauchesne).

Mateau is directed to designing a tooling assembly, such as a mold or a die. In Mateau, size of dies, cavity, core, etc., are examined based on shape of a finished part for designing the tooling assembly (see, paragraphs 22, 23 and 25). According to Mateau, its process is

performed as part of a program performed by a computer system. The Mateau system includes a database containing information relevant to the design of the tooling assembly such as design standards and customer requirements. The database of information is used to define a set of requirements for each component. The specific part configuration for each component is stored in a Master Control File for validation with other components that will be used in the tooling assembly.

According to Mateau, the system also includes an inference engine that gathers information contained within various modules. The "smart part" module includes information on specific features of the part to be molded within the cavity of a mole. *See* Mateau, page 4, paragraph 0042. Another module contains information on company specific standards such as overall height and weight of a mold, with specific features desired and required by a company such as gate placement, ejector pin size, backing plate thickness and materials used in constructing the mold. *See* Mateau, page 4, paragraph 43. Yet another module contains an internal knowledge base that is a series of restrictions, limitations tolerances, and guidelines that are accumulated from experience and learning. According to Mateau, the accumulated knowledge of an experienced designer encompasses all aspects of mold design from the diameter of an ejector pin relative to part size, to specific placement of an alignment pin. *See* Mateau, page 4, paragraph 46.

Beauchesne is directed to a database system that allegedly provides a manufacturing factory environment. According to Beauchesne, the system includes a computer database system, which includes a Central Processing Unit (CPU). The database system is included within a database system memory, which includes a plurality of table database structures. The table structures include a product list table structure, a line list table structure, a recipe list table structure, a product parameter table structure, a recipe list table structure, and a history table structure. *See* Beauchesne, column 5, lines 26-32.

As defined by independent claim 1, for example, the present invention is directed to a design support system for supporting design of a manufacturing line wherein the system includes, "a manufacturing line information preparation section for preparing information about said manufacturing line by acquiring information about said element types stored in said element type database based on said element types selected by said selection section."

Applicants respectfully submit that independent claim 1, for example, is patentable over the references, as neither Mateau nor Beauchesne, taken alone or in combination, teaches or

suggests the above-identified feature of the claims.

The database in Mateau merely contains information relating to each component, for example, specification for the design of a mold. As Mateau is not directed to supporting the design of a *manufacturing line*, Mateau does not teach or suggest the above-identified feature.

Similarly, there is no teaching or suggestion in Beauchesne of the above-identified feature. Although the line table structure of Beauchesne contains line equipment control information entries, Beauchesne does not prepare information about a manufacturing line by acquiring information about element types stored in an element type database based on element types selected by a selection section.

Assuming *arguendo* that the line equipment control information entries can be considered to be element types, the entries are not individually selected by a selection section.

Therefore, neither Mateau nor Beauchesne, taken alone or in combination, teaches or suggests the above-identified feature of independent claim 1, for example. As independent claims 31-33 recite language similar to that of independent claim 1, claims 31-33 are patentable over the references for at least the reasons presented above for independent claim 1. As dependent claims 4, 6, and 8-30 depend from independent claim 1, the dependent claims are patentable over the references for at least the reasons presented for the independent claims.

As Fischer is limited to an injection mold system and is used to process bills and costs, Fischer does not teach or suggest the above-identified feature of the present invention. Therefore, claims 23-28 via claim 1 are patentable over the references for at least the reasons presented above for independent claim 1.

Further, Applicants submit that the present invention relates to a design support system suitable for use in supporting the design of a manufacturing line for various processes of manufacturing an electronic device. The system in which information of a required manufacturing cell is selected from the element type database and the manufacturing line is designed based on the selected information by determining another element or others suitable for the selected information.

In contrast, Mateau discloses a design support system suitable for molds and dies to design a cavity, the core and the gate considering interrelationships between all parts of the mold based on the shape of the mold or the shape of a desired part.

The Examiner alleged that the element type determination section of the present

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invention (for determining the element types or specifications of the element types based on the element types selected by the selection section) corresponds to the feature of Mateau described at paragraphs [0031], [0046] and [0056) of Mateau. However, Mateau performs mold design with reference to mold data file 12, internal knowledge database 56 and master control file 60, but is totally silent about automatically determining another element type or a specification of another element type based on at least one of a conditional expression selected, as performed by the present invention.

Additionally, Mateau does not teach or suggest an incidental expression having information to be used for preventing reflection of information about a specific constituent element or element type that is described in the present invention. The conditional expression and incidental expression are detailed in the description of the application, beginning with page 47, lines 1-5 – page 48, 1-10 of the specification of the present invention.

The present invention is featured by the conditional expression and the incidental expression which are stored in the element type database and which determine suitability of a manufacturing cell of the ensuing process because of the presence of the procedural restriction. With the above-identified expressions, the manufacturing cell of the ensuing process can be automatically selected.   Therefore, the present invention is patentable distinct from and not obvious in light of Mateau.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.
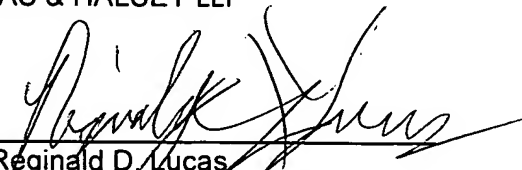
Respectfully submitted,

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